



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,687	04/21/2004	John T. Holloway	BU1321C	4479
7590	08/22/2007		EXAMINER	
Brake Hughes PLC C/O Intelleivate P.O. Box 52050 Minneapolis, MN 55402			SHIVERS, ASHLEY L	
			ART UNIT	PAPER NUMBER
			2609	
			MAIL DATE	DELIVERY MODE
			08/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/828,687	HOLLOWAY ET AL.
	Examiner Ashley L. Shivers	Art Unit 2609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-18 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 21 April 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/21/2004.

- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

**DETAILED ACTION*****Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-9 are rejected on the ground of nonstatutory obviousness-type

double patenting as being unpatentable over claims 1-7 of **U.S. Patent No.**

**6,747,996**; hereinafter known as '996 in view of Baker et al. (**U.S. Patent No.**

**6,661,811**) and Rakib et al. (**U.S. Patent No. 7,095,707**), hereinafter known as

Baker and Rakib respectively.

Regarding claim 1, '996 teaches a system for providing synchronous telephony or POTS services over an asynchronous communications network, comprising:

a gateway coupled to the asynchronous communications network

(**Claim 1, 1<sup>st</sup> step**) having a first clock for creating a first clock signal and incorporating the first clock signal as a first timestamp in a packetized voice sample (**Claim 1, 2<sup>nd</sup> step**), and transmitting the packetized voice sample over the asynchronous communications network (**Claim 1, 2<sup>nd</sup> step**);

a terminal interface (**synchronous terminal; See Claim 1, 2<sup>nd</sup> step**)

for receiving the packetized voice sample from the asynchronous communications network (**receiving sample from the gateway; See Claim 1, 2<sup>nd</sup> step**) and measuring the time of arrival of the packetized voice sample in a second timestamp (**Claim 1, 3<sup>rd</sup> step**);

U.S. Patent No. 6,747,996 does not teach of the synchronization module and the codec.

Baker teaches of a synchronization module (See col. 2, lines 23-27) for receiving the packetized voice sample and the second timestamp from the terminal interface (**receiving the data packets and detecting and temporarily recording the transmission timestamps; See col. 3, lines 59-60**) and extracting the first timestamp from the packetized voice sample and comparing it to the second timestamp (**adding the difference between the transmission timestamp of the present data packet and the transmission timestamp of the first data packet; See col. 4, lines 7-10**) to produce a second clock signal (a receiver clock which is synchronized in frequency but not necessarily in absolute time with the transmission clock; See col. 3, lines 61-63);

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of '996 to include the synchronization module taught by Baker in order to prevent data from being lost or unorganized.

Rakib teaches of

a codec receiving the packetized voice sample (**a decoder to decode the received data; See [0016]**) and the second clock signal (**the decoder receiving a local clock signal which has been synchronized with the transmitter master clock signal; See [0016]**) from the synchronization module;

wherein the codec decodes the packetized voice sample using the second clock signal (**a decoder to decode the received data; See [0016]**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of '996 to include the codec taught by Rakib in order to convert analog and digital signals with one device without needing an encoder and decoder.

Regarding claim 2, '996 teaches the system of Claim 1, wherein one or more gateways communicate with one or more terminal interfaces over the asynchronous communications network in accordance with a synchronization protocol (**Claim 1, preamble**).

Regarding claim 3, '996 teaches the system of Claim 2, wherein the transmission of packets between the gateways and the terminal interfaces is ordered in accordance with the synchronization protocol (**Claim 1, 1<sup>st</sup> step**).

Regarding claim 4, '996 teaches the system of Claim 3, wherein when one or more terminal interfaces attempts to transmit at the same time after the packetized voice sample is sent from the gateway (**Claim 2**), each terminal interface retains ordering information from collision resolution cycles (**Claim 3**).

Regarding claim 5, '996 teaches the system of Claim 3, wherein the ordering information is used repeatedly for further transmissions in place of collision resolution (**Claim 4**).

Regarding claim 6, '996 teaches the system of Claim 3, wherein the synchronization protocol includes assigning access priorities to and establishing keep-out windows for terminal interfaces coupled to the asynchronous communications network such that the keep- out windows prevent a first terminal interface having a low access priority from transmitting on the asynchronous communications network before the completion of transmission of a packetized voice sample from the gateway to a second terminal interface having a higher access priority (**Claim 5**).

Regarding claim 7, '996 teaches the system of Claim 1, wherein packetized voice samples transmitted over the asynchronous communications network may be delayed by access jitter (**Claim 6**).

Regarding claim 8, '996 teaches the system of Claim 7, wherein the access jitter includes one or more of: basic access delay, collision resolution delay, or priority access delay (**Claim 6**).

Regarding claim 9, '996 teaches the system of Claim 1, wherein the asynchronous communications network implements HPNA technology (**Claim 7**).

3. Claims 10-18 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of **U.S. Patent No. 6,747,996** in view of Woodhead et al (U.S. Patent No. 5,640,388) hereinafter referred to as Woodhead and in further view of Baker.

Regarding claim 10, '996 teaches a method for providing synchronous telephony or POTS services over an asynchronous communications network, the method comprising:

incorporating the first timestamp into the first packetized voice sample (**Claim 1, 2<sup>nd</sup> step**);

transmitting the first packetized voice sample over the asynchronous communications network from the gateway to a terminal device (**Claim 1, 2<sup>nd</sup> step**);

measuring and storing the delay between the queuing and transmission of the first packetized voice sample to produce a stored access delay (**Claim 1, 3<sup>rd</sup> step**);

transmitting the second packetized voice sample over the asynchronous communications network from the gateway to the terminal device (**Claim 1, 2<sup>nd</sup> step**) ;

U.S. Patent No. 6,747,996 does not teach of queuing the samples, sampling and storing the first clock, incorporating the delay in the second sample, and getting the second clock and clock adjustment values.

Woodhead teaches

queueing a first packetized voice sample at a gateway for transmission over the asynchronous communications network (**receiving the packets at an intermediate site; See claim col. 6 lines 61-67**);

sampling and storing the value of a first clock (**recording a first value of said local clock; See col. 15, lines 28-30**) at the time at which the first packetized voice sample is queued for transmission to produce a first timestamp (**setting the value of a first timestamp; See col. 6, lines 49-53**);

queueing a second packetized voice sample at the gateway for transmission over the asynchronous communications network (**receiving the packets at an intermediate site; See col. 6 lines 61-67**);

incorporating the stored access delay into the second packetized voice sample (**setting the value of a first modified timestamp; See col. 4, lines 35-37**);

sampling and storing the value of the first clock (**recording a value of said local clock; See col. 15, lines 28-30**) at the time at which the second packetized voice sample is queued for transmission to produce a second timestamp (**calculating a second modified timestamp; See col. 7, lines 60-63**);

incorporating the second timestamp into the second packetized voice sample (**after calculating said second modified timestamp, replacing the value of the timestamp in said second packet with the value of said second modified timestamp; See col. 8, lines 5-8**);

extracting the second timestamp and stored access delay from the second packetized voice sample (**comparing the value of the timestamp in said second packet to the value of said second modified timestamp for subsequent packets; See col. 8, lines 11-14**);

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of '996 to include queuing the samples, sampling and storing the first clock and incorporating the delay in the second sample taught by Woodhead in order to account for the variations in the time associated with the transmission of multiple samples of data.

Baker teaches

sampling and storing the value of a second clock at the time at which the second packetized voice sample is received at the terminal device to produce a third timestamp (storing the absolute time of the receiver clock when the packet containing a transmission timestamp is received; See col. 3, lines 64-65);

subtracting the second timestamp and stored access delay from the third timestamp to produce a clock adjustment value (subtracting the value of the transmission timestamp in the [second] received data packet from the [subsequent] transmission timestamp; See col. 4, lines 4-6) and

adjusting the phase of the second clock based on the clock adjustment value (adding the difference between the transmission timestamp of the present data packet and the transmission timestamp of the first data packet to the output time of the first data packet to define the output time of the present packet; See col. 4, lines 7-10).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of '996 to include getting the second clock and clock adjustment values taught by Baker in order to establish a more accurate receiving clock time.

Regarding claim 11, '996 teaches the method of Claim 10, wherein one or more gateways communicate with one or more terminal interfaces over the asynchronous communications network in accordance with a synchronization protocol (**Claim 1, 1<sup>st</sup> step**).

Regarding claim 12, '996 teaches the method of Claim 11, wherein the transmission of packets between the gateways and the terminal interfaces is ordered in accordance with the synchronization protocol (**Claim 1, 1<sup>st</sup> step**).

Regarding claim 13, '996 teaches the method of Claim 12, wherein when one or more terminal interfaces attempts to transmit at the same time after the packetized voice sample is sent from the gateway (**Claim 2**), each terminal interface retains ordering information from collision resolution cycles (**Claim 3**).

Regarding claim 14, '996 teaches the method of Claim 12, wherein the ordering information is used repeatedly for further transmissions in place of collision resolution (**Claim 4**).

Regarding claim 15, the method of Claim 12, wherein the synchronization protocol includes assigning access priorities to and establishing keep-out windows for terminal interfaces coupled to the asynchronous communications network such that the keep- out windows prevent a first terminal interface having a low access priority from transmitting on the asynchronous communications network before the completion of transmission of a packetized voice sample from the gateway to a second terminal interface having a higher access priority (**Claim 5**).

Regarding claim 16, '996 teaches the method of Claim 10, wherein the delay between the queuing and transmission of the first packetized voice sample may be caused by access jitter (**Claim 6**).

Regarding claim 17, '996 teaches the method of Claim 16, wherein the access jitter includes one or more of: basic access delay, collision resolution delay, or priority access delay (**Claim 6**).

Regarding claim 18, '996 teaches the method of Claim 10, wherein the asynchronous communications network implements HPNA technology (**Claim 7**).

*Conclusion*

4. Any response to this action should be **faxed to (571)273-8300 or mailed to:**

Commissioner of Patents,  
P.O. Box 1450  
Alexandria, VA 223103-1450

**Hand delivered responses should be brought to:**  
Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashley L. Shivers whose telephone number is (571) 270-3523. The examiner can normally be reached on Monday-Thursday 8:30-7:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benny Tieu can be reached on (571) 272-7490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ALS



BENNY Q. TIEU

SPE/TRAINER